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30 June 2006 Safeguards 'too little, too late' for Florida reefs



When veteran ocean divers Ed Tichenor and Dan Clark first began to explore South Florida's undersea world, elkhorn and staghorn coral grew in thickly antlered stands, a major component of colorful forests in a world of aquamarine. Then the forests all but disappeared.

"Once, you could snorkel off any beach and come across beautiful reef," said Clark, a Coral Springs environmentalist who has been diving Broward County waters for more than 35 years.

In Palm Beach County, staghorn coral's northern range, the decline was less dramatic only because the coral was less abundant. "After the last two hurricane seasons, they are even harder to find," said Tichenor, of Hypoluxo.

Now, two weeks after the two species became the first corals ever to be granted protection under the federal Endangered Species Act, divers and conservationists are buoyant with hope.

"I see this as a major step in recognizing coral reefs as a truly unique environment," said Janet Phipps, an analyst with the Palm Beach County Resource Management Department. "This is another way of raising the flag, saying we need to protect these corals."

Corals are made up of tiny animals that grow limestone skeletons to form reefs.

The reefs provide shelter for a rich diversity of marine life, including fish, sea urchins, crabs and other animals and plants.

But corals, and the reefs they help build, have been declining worldwide under pressure from global warming, rising sea temperatures, disease, pollution and hurricanes.

The branching elkhorn and staghorn corals occur in the shallow reefs in Palm Beach, Broward and Miami-Dade counties, and throughout the Keys and the Caribbean. But since the 1980s, these two corals have declined by as much as 97 percent -- a rate of disappearance that the Center for Biological Diversity called "an unprecedented rate of loss that is unmatched in the known history of the Earth."

With relatively few records documenting the early years of Earth, believed to have been formed some 4.5 billion years ago, biologist Jennifer Moore of the National Oceanic & Atmospheric Administration says the center's assessment may be "a hyperbolic statement." Still, she added, geologic evidence suggests "the rate of decline has been extremely dramatic."

Tichenor, 56, a retired environmental scientist who directs Palm Beach County Reef Rescue, and Clark, 45, of the Broward conservation group Cry of the Water, agree that the Endangered Species listing is a major step toward preservation.

Yet, as the NOAA's Fisheries Service draws up a detailed conservation plan to protect and encourage the spread of the threatened South Florida corals, pollution and rising sea temperatures continue to take a toll, they contend.

Outflow from the South Central Regional Wastewater Treatment and Disposal Plant, which serves both Delray Beach and Boynton Beach, continues daily to pour millions of gallons of nutrient-rich water into the ocean.

That wastewater may encourage algae blooms that block sunlight to the corals, said Tichenor, who worked with the San Francisco-based Center for Biological Diversity to lobby for the federal protections.

A study by Tichenor's group suggesting the link between the outflow and algae prompted state regulators to require the treatment plant to monitor discharges for water quality.

Similar treatment plants discharging into the ocean are located in Boca Raton and in Broward County.

Scientists also have called for a ban on the sale of dead staghorn and elkhorn coral. While commerce in corals taken before they were protected is legal, the sale confuses the public and encourages poaching, said Steven Lutz, a policy analyst with the Marine Conservation Biology Institute in Washington.

Among South Florida shops where coral is being offered is Alex's Gift Shop in Hollywood, where clerk Mary Benson said one large piece of staghorn coral is priced at \$2,000. "Coral has always been a good seller," said Benson. "But we know that what we have [now] is all we're going to have."